

DAMAGE SURVEY REPORT (DSR)
Emergency Watershed Protection Program – Recovery

Section 1A

Date of Report: 02/17/2005

DSR Number: 019-05-062R Project Number: Contraband Bayou

NRCS Entry Only

Eligible: YES ☒ NO ☐

Approved: YES ☒ NO ☐

Funding Priority Number (from Section 4) 1de

Limited Resource Area: YES ☐ NO ☒

Section 1B Sponsor Information

Sponsor Name: Gravity Drainage District 4

Address: 1204 Lakeshore Dr.

City/State/Zip: Lake Charles, LA 70601

Telephone Number: (337)436-6936

Fax: (337)433-9883

Section 1C Site Location Information

County: Calcasieu State: Louisiana Congressional District: 7

Latitude: 30.17732 Longitude: 93.21371 Section: 20 Township: 10S Range: 8W

UTM Coordinates: _____

Drainage Name: Contraband Bayou b/n Common St. & Louisiana St. Reach: Reach 1-2,470; Reach 2-1,270; Reach 3-300 (4,040 ft.)

Damage Description: Channel has become obstructed with debris due to Hurricane Rita

Section 1D Site Evaluation

All answers in this Section must be YES in order to be eligible for EWP assistance.

Site Eligibility	YES	NO	Remarks
Damage was a result of a natural disaster?*	X		Hurricane Rita, September 2005
Recovery measures would be for runoff retardation or soil erosion prevention?*	X		
Threat to life and/or property?*	X		
Event caused a sudden impairment in the watershed?*	X		
Imminent threat was created by this event?**	X		
For structural repairs, not repaired twice within ten years?***	X		
Site Defensibility			
Economic, environmental, and social documentation adequate to warrant action? (Go to pages 3, 4, 5 and 6 ***)	X		See attached documentation
Proposed action technically viable? (Go to Page 9 ***)	X		See attached documentation

Have all the appropriate steps been taken to ensure that all segments of the affected population have been informed of the EWP program and its possible effects? YES X NO ☐

Comments: Local Gravity Drainage District has been consulted.

* Statutory

** Regulation

*** DSR Pages 3 through 6 and 9 are required to support the decisions recorded on this summary page. If additional space is needed on this or any other page in this form, add appropriate pages. 1 of 14

Approved 7/2005

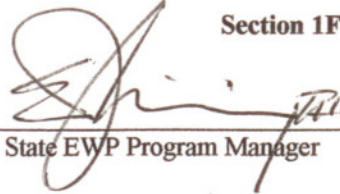
Section 1E Proposed Action

Describe the preferred alternative from Findings: Section 5 A: Reach 1 will be worked from within the channel up to top bank on both sides of the channel. Reach 2 will be worked from the top bank on the north side of the channel with a 25 ft. access. Reach 3 will be worked from the top bank on the south side of the channel with a 25 ft. access.

Total installation cost identified in this DSR: Section 3: \$\$54,996.00

Section 1F NRCS State Office Review and Approval

Reviewed By:


State EWP Program Manager

Date Reviewed:

2/27/06

Approved By:

State Conservationist

Date Approved:

PRIVACY ACT AND PUBLIC BURDEN STATEMENT

NOTE: The following statement is made in accordance with the Privacy Act of 1974, (5 U.S.C. 552a) and the Paperwork Reduction Act of 1995, as amended. The authority for requesting the following information is 7 CFR 624 (EWP) and Section 216 of the Flood Control Act of 1950, Public Law 81-516, 33 U.S.C. 701b-1; and Section 403 of the Agricultural Credit Act of 1978, Public Law 95-334, as amended by Section 382, of the Federal Agriculture Improvement and Reform Act of 1996, Public Law 104-127, 16 U.S.C. 2203. EWP, through local sponsors, provides emergency measures for runoff retardation and erosion control to areas where a sudden impairment of a watershed threatens life or property. The Secretary of Agriculture has delegated the administration of EWP to the Chief or NRCS on state, tribal and private lands.

Signing this form indicates the sponsor concurs and agrees to provide the regional cost-share to implement the EWP recovery measure(s) determined eligible by NRCS under the terms and conditions of the program authority. Failure to provide a signature will result in the applicant being unable to apply for or receive a grant the applicable program authorities. Once signed by the sponsor, this information may not be provided to other agencies. IRS, Department of Justice, or other State or Federal Law Enforcement agencies, and in response to a court or administrative tribunal.

The provisions of criminal and civil fraud statutes, including 18 U.S.C. 286, 287, 371, 641, 651, 1001; 15 U.S.C. 714m; and 31 U.S.C. 3729 may also be applicable to the information provided. According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0578-0030. The time required to complete this information collection is estimated to average 117/1.96 minutes/hours per response, including the time for reviewing instructions, searching existing data sources, field reviews, gathering, designing, and maintaining the data needed, and completing and reviewing the collection information.

USDA NONDISCRIMINATION STATEMENT

"The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.)

Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination write USDA, Director of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (800)795-3272 (voice) or (202)720-6382 (TDD). USDA is an equal opportunity provider and employer.

Civil Rights Statement of Assurance

The program or activities conducted under this agreement will be in compliance with the nondiscrimination provisions contained in the Titles VI and VII of the Civil Rights Act of 1964, as amended; the Civil Rights Restoration Act of 1987 (Public Law 100-259); and other nondiscrimination statutes: namely, Section 504 of the Rehabilitation Act of 1973, Title IX of the Amendments of 1972, the Age Discrimination Act of 1975, and the Americans with Disabilities Act of 1990. They will also be in accordance with regulations of the Secretary of Agriculture (7 CFR 15, 15a, and 15b), which provide that no person in the United States shall on the grounds of race, color, national origin, gender, religion, age or disability, be excluded from participation in, be denied the benefits of, or otherwise subjected to discrimination under any program or activity receiving Federal financial assistance from the U.S. Department of Agriculture or any agency thereof.

Section 2 Environmental Evaluation

2A Resource Concerns	2B Existing Condition	2C Alternatives and Effects		
		Proposed Action	No Action	Alternative
		Remove debris from channel, accessing from within the channel, or from one side of channel, dispose of in an approved landfill	Leave debris in channel	Remove debris from channel, accessing from one side of channel, dispose of in an approved landfill
		2D Effects of Alternatives		
Soil				
Compaction	No compaction	Slight compaction due to heavy equipment	No compaction	Slight compaction due to heavy equipment
Bank erosion	10 tons/ac	5 tons/ac	10 tons/ac	5 tons/ac
Water				
Turbidity	Very turbid due to bank erosion	Turbidity decreasing over time with re-seeding disturbed areas	Bank erosion will continue – increasing turbidity	Turbidity dec. over time with re-seeding disturbed areas
Overall Stream Health	SVAP- 2	SVAP-3	SVAP- 2	SVAP-3
Air				
Particulate Matter	N/A	Slight increase during debris removal if dry conditions	N/A	Slight increase during debris removal if dry conditions
Plant				
Riparian Area	Trees in riparian zone damaged (limited riparian zone)	Removal of debris restores pre-storm condition of riparian area	Impacted by damaged trees and debris	Removal of debris restores pre-storm condition of riparian area
Animal				
Aquatic life	Debris may be improving habitat for invertebrates and micro fauna	Sufficient habitat should remain after removal of debris	Debris may be improving habitat for invertebrates and micro fauna	Sufficient habitat should remain after removal of debris
Other				
Aesthetics	Poor due to debris and clutter	Restore area to pre-storm conditions with potential to improve landscape	Continue to decrease due to accumulation of debris	Restore area to pre-storm conditions with potential to improve landscape
Vectors/Disease	Excess debris causing lack of flow	Restore channel to pre-storm flow	Flow decreased causing stagnant pools	Restore channel to pre-storm flow

Section 2E Special Environmental Concerns

Resource Consideration	Existing Condition	Alternatives and Effects		
		Proposed Action	No Action	Alternative
Clean Water Act Waters of the U.S.	CWA jurisdiction and Water Quality Certification	Requires CWA permit and Water Quality Certification	No permit required	Requires CWA permit and Water Quality Certification
Coastal Zone Management Areas	Project area not in Coastal Management Zone	N/A	N/A	N/A
Coral Reefs	None	N/A	N/A	N/A
Cultural Resources	State Level Review requested	State Level Review requested	State Level Review requested	State Level Review requested
Endangered and Threatened Species	Species listed in Parish – none observed on site	US FWS will be consulted if species are found on site	N/A	US FWS will be consulted if species are found on site
Environmental Justice	N/A	N/A	N/A	N/A
Essential Fish Habitat	Project area not EFH	N/A	N/A	N/A
Fish and Wildlife Coordination	Stream modification not proposed in project	Will consult CWA permit for guidance	N/A	Will consult CWA permit for guidance
Floodplain Management	Project area within 100 year flood plain	Will restore to pre-storm function	Flood plain is impaired by excess debris	Will restore to pre-storm function
Invasive Species	None identified on site	May increase likelihood of establishment	N/A	May increase likelihood of establishment
Migratory Birds	Project area may provide limited habitat for neotropicals	Should not impact	Should not impact	Should not impact
Natural Areas	Highly urbanized – N/A	N/A	N/A	N/A
Prime and Unique Farmlands	Highly urbanized – N/A	N/A	N/A	N/A
Riparian Areas	Limited riparian habitat, impacted by debris	Removal of debris improves habitat	Limited riparian habitat, impacted by debris	Removal of debris improves habitat
Scenic Beauty	Highly urbanized area	No impact		
Wetlands	Hydrology of wetlands impacted by excess debris	Restore hydrology to pre-storm conditions	Hydrology of wetlands impacted by excess debris	Restore hydrology to pre-storm conditions
Wild and Scenic Rivers	None in project area	N/A	N/A	N/A

Completed By: Brian BaiaomonteDate: 2/22/2006

DSR NO: 019-05-062R

Section 2F Economic

This section must be completed by each alternative considered (attach additional sheets as necessary).

	Future Damages (\$)	Damage Factor (%)	Near Term Damage Reduction
Properties Protected (Private)			
111 homes (1500 square feet)	\$9,038,099.52	20%	\$1,807,619.90
Properties Protected (Public)			
Business Losses			
Other			
Total Near Term Damage Reduction \$			\$1,807,619.90
Net Benefit (Total Near Term Damage Reduction minus Cost from Section 3)			\$1,752,623.90

Completed By: Joy Martin Date: 02/21/2006

Notes: This is a highly populated area, with several structures that could be affect that were not included due to lack of need for economic justification. Within the area there is a water treatment plant located on McNeese St. that backs up to the channel. A fire station is located on Kirkman approximately 500 feet north of the channel. McNeese State University facilities, including classrooms and dorms are located downstream. Several medical facilities are located in the area, specifically, on Louisiana Street. There is a mental health faciltiy, and a hospital. There is a daycare on Louisiana Street. Three apartment complexes are located along the channel, one on Louisiana, and two on Kirkman. All are adjacent to the channel.

Section 2G Social Consideration

This section must be completed by each alternative considered (attach additional sheets as necessary).

	YES	NO	Remarks
Has there been a loss of life as a result of the watershed impairment?		X	
Is there the potential for loss of life due to damages from the watershed impairment?	X		Failure of road crossings poses a threat to human life and property.
Has access to a hospital or medical facility been impaired by watershed impairment?	X		Hospital located in very close proximity. Debris in channel with excess rains could cause access to the hospital to be limited from the south.
Has the community as a whole been adversely impacted by the watershed impairment (life and property ceases to operate in a normal capacity)		X	
Is there a lack or has there been a reduction of public safety due to watershed impairment?	X		Debris in channel includes miscellaneous trash which could contain environmental hazards, fire station located within 500 feet of channel, access southbound could be limited in the event of major rainfall.

Completed By: Joy MartinDate: 02/21/2006

Section 2H Group Representation and Disability Information**This section is completed only for the preferred alternative selected.**

Group Representation	Number
American Indian/Alaska Native Female Hispanic	
American Indian/Alaska Native Female Non-Hispanic	1
American Indian/Alaska Native Male Hispanic	
American Indian/Alaska Native Male Non-Hispanic	
Asian Female Hispanic	
Asian Female Non-Hispanic	12
Asian Male Hispanic	
Asian Male Non-Hispanic	9
Black or African American Female Hispanic	
Black or African American Female Non-Hispanic	84
Black or African American Male Hispanic	
Black or African American Male Non-Hispanic	93
Hawaiian Native/Pacific Islander Female Hispanic	
Hawaiian Native/Pacific Islander Female Non-Hispanic	
Hawaiian Native/Pacific Islander Male Hispanic	
Hawaiian Native/Pacific Islander Male Non-Hispanic	
White Female Hispanic	
White Female Non-Hispanic	159
White Male Hispanic	
White Male Non-Hispanic	148
Total Group	506

Census tract(s) Tract 11, blocks: 3001, 3002, 3006, 3007, 3008, 3009, 3010, 3011Completed By: JOY MARTINDate: 02/17/2006

Section 2I. Required consultation or coordination between the lead agency and/or the RFO and another governmental unit including tribes:

Easements, permissions, or permits:

Sponsor must secure easement/permission for access to and work along the channel on private lands.

404 Permit may be required as a result of grubbing of stumps.

Water Quality Certification

Mitigation Description:

Work will be completed in a timely manner to reduce impacts to adjacent properties. Restoration of pre-storm flow will reduce stagnant pools, thereby reducing the threat of insect borne disease. Work will be completed from either inside the channel, or accessing from only one side of the channel. Debris will be disposed of in an approved land fill.

Agencies, persons, and references consulted, or to be consulted:

U.S. Army Corps of Engineers
LA DEQ for Water Quality Certification
LDWF for consultation only

Section 3 Engineering Cost EstimateCompleted By: Jason KrollDate: 02/22/2006**This section must be completed by each alternative considered (attach additional sheets as necessary).**

Proposed Recovery Measure (including mitigation)	Quantity	Units	Unit Cost (\$)	Amount (\$)
Mobilization & Demobilization	1	LS	\$10,000.00	\$10,000.00
Channel Obstruction Removal	4,040	LF	\$9.90	\$39,996.00
Seeding, Sprigging, and Mulching	1	AC	\$200.00	\$200.00
Flexifloat equipment	1	LS	\$4,800.00	\$4,800.00
Total Installation Cost (Enter in Section 1F)\$				\$54,996.00

Unit Abbreviations:

AC Acre
 CY Cubic Yard
 EA Each
 HR Hour
 LF Linear Feet
 LS Lump Sum
 SF Square Feet
 SY Square Yard
 TN Ton
 Other (Specify)

Section 4 NRCS EWP Funding Priority

Complete the following section to compute the funding priority for the recovery measures in this application (see instructions on page 10).

Priority Ranking Criteria	Yes	No		Ranking Number Plus Modifier
1. Is this an exigency situation?	X			1 – d,e
2. Is this a site where there is serious, but not immediate threat to human life?				
3. Is this a site where buildings, utilities, or other important infrastructure components are threatened?				
4. Is this site a funding priority established by the NRCS Chief?				
The following are modifiers for the above criteria			Modifier	
a. Will the proposed action or alternatives protect or conserve federally-listed threatened and endangered species or critical habitat?			N	
b. Will the proposed action or alternatives protect or conserve cultural sites listed on the National Register of Historic Places?			N	
c. Will the proposed action or alternatives protect or conserve prime or important farmland?			N	
d. Will the proposed action or alternatives protect or conserve existing wetlands?			Y	
e. Will the proposed action or alternatives maintain or improve current water quality conditions?			Y	
f. Will the proposed action or alternatives protect or conserve unique habitat, including but not limited to, areas inhabited by State-listed species, fish and wildlife management area, or State identified sensitive habitats?			N	

Enter priority computation in Section 1A, NRCS Entry, Funding priority number.

Remarks:

Section 5A Findings

Finding: Indicate the preferred alternative from Section 2 (Enter to Section 1E):

I have considered the effects of the action and the alternatives on the Environmental Economic, Social; the Special Environmental Concerns; and the extraordinary circumstances (40 CFR 1508.27). I find for the reasons stated below, that the preferred alternative:

X Has been sufficiently analyzed in the EWP PEIS (reference all that apply)
Chapter 5.2.2.1.2
Chapter _____
Chapter _____
Chapter _____
Chapter _____

_____ May require the preparation of an environmental assessment or environmental impact statement.
The action will be referred to the NRCS State Office on this date:

NRCS representative of the DSR team

Title: Brian Baiamonte, District Conservationist Date: 02/22/2006

Section 5B Comments:**Section 5C**

Sponsor Concurrence: _____

Sponsor Representative

Michael L. Wither

Title: Superintendent

Date: 02/24/06

Section 6 Attachments:

- A. Location Map
- B. Site Plan or Sketches
- C. Other (explain)

SECTION 6

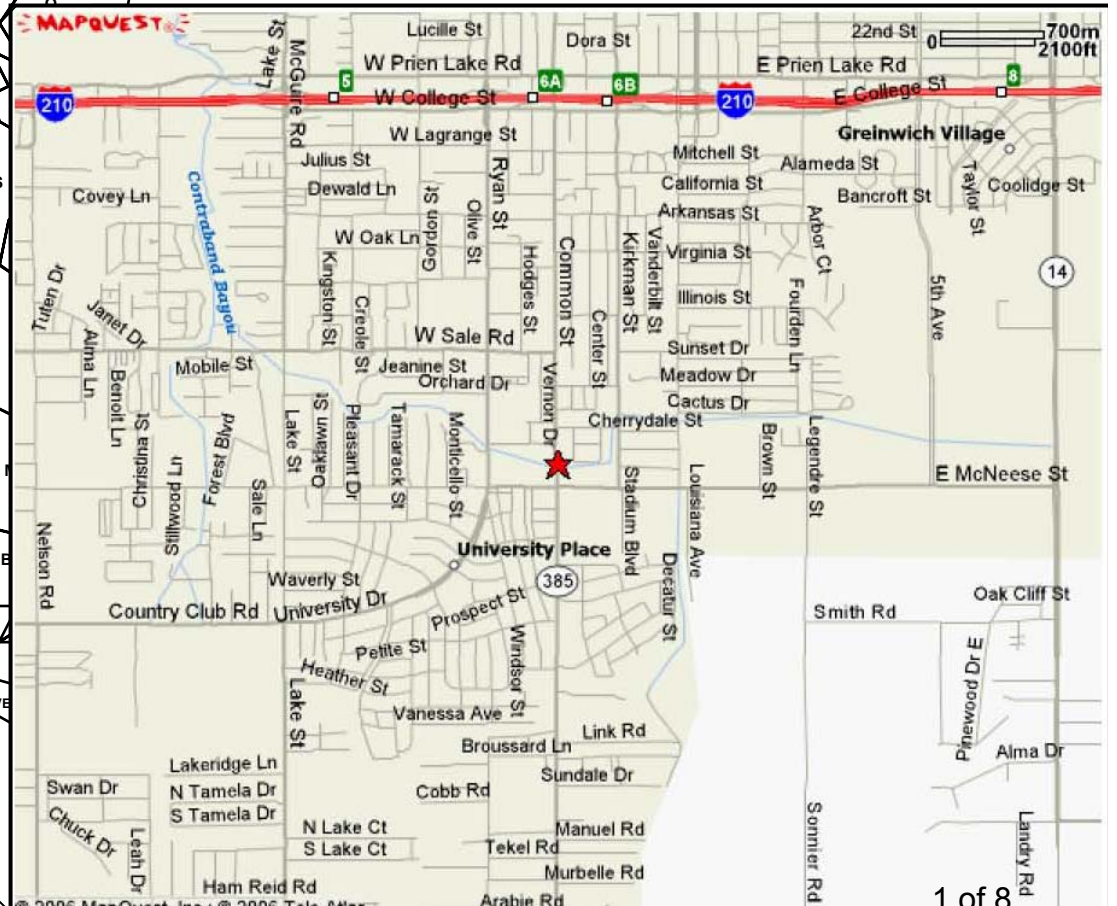
ATTACHMENTS

Calcasieu Parish
DSR# 019-05-062R
Contraband Bayou
Common Street to Louisiana Ave.

DSR# 019-05-062R

Contraband Bayou

Common Street to Louisiana Ave.



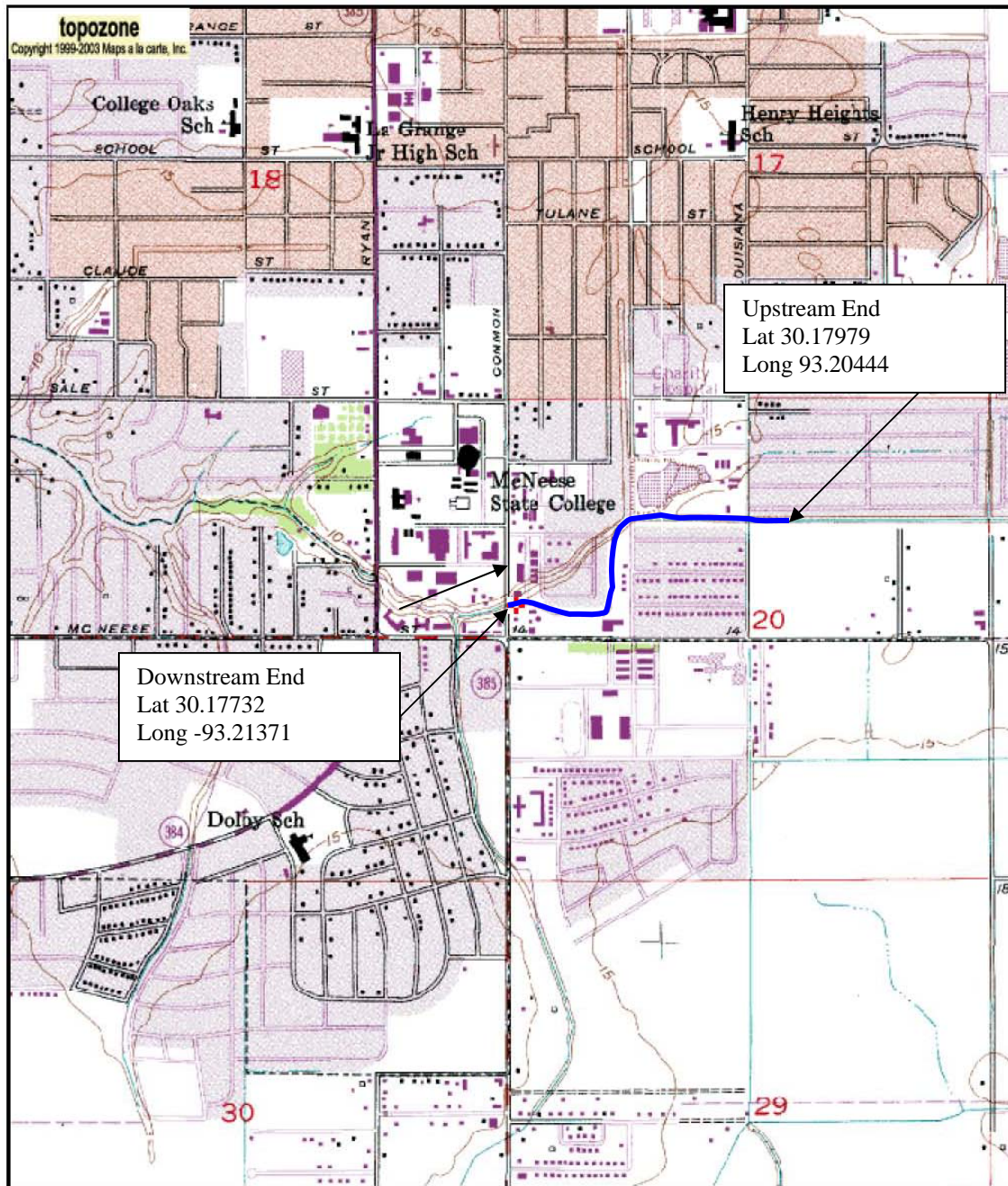
SITE MAP
DSR 019-05-062R
Contraband Bayou
Common St. to Louisiana Ave.
Calcasieu Parish



TOPO MAP
DSR 019-05-062R
Contraband Bayou
Common St. to Louisiana Ave.
Calcasieu Parish

TopoZone - The Web's Topographic Map

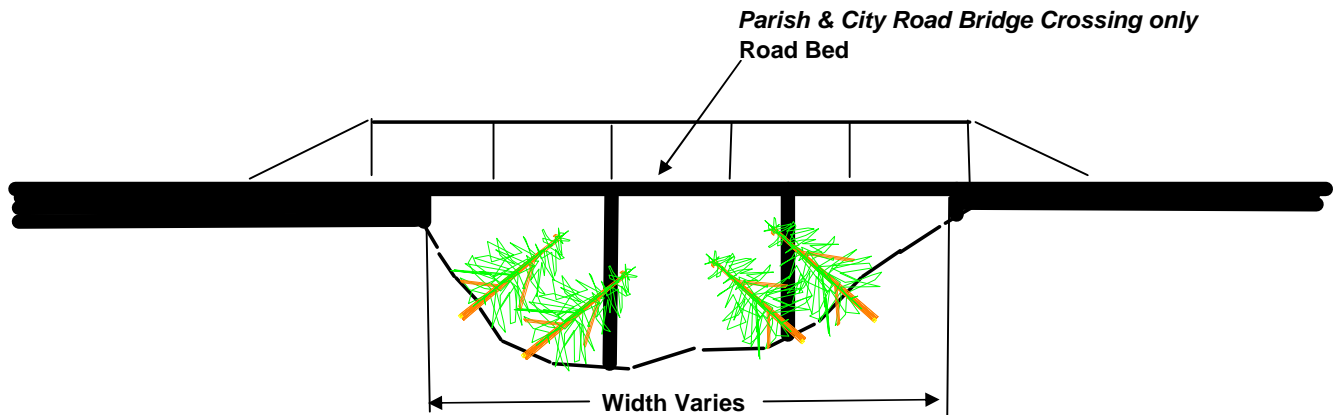
Page 1 of 1



0 0.3 0.6 0.9 1.2 1.5 km
0 0.2 0.4 0.6 0.8 1 mi
Map center is 30.1773°N, 93.2137°W (WGS84/NAD83)
Lake Charles quadrangle
Projection is UTM Zone 15 NAD83 Datum

M=2.684
G=-0.107

Debris Removal



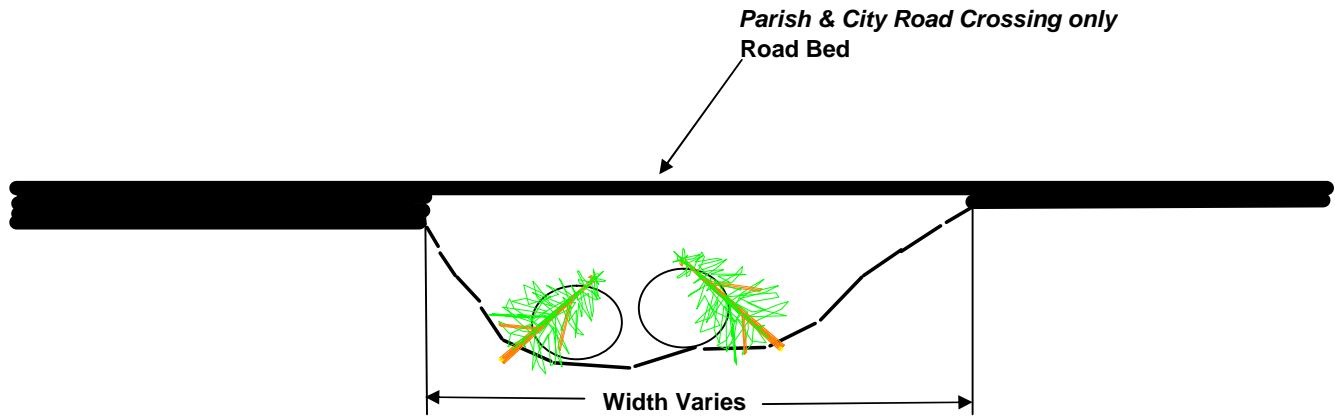
Note: Contract is to remove Debris from upstream and downstream Bridge which includes underside of bridge

Exception: All Crossing which cross State or Federal highways are not included in contract

Typical Road Bridge Crossing Not to Scale

Notice:
48 Hours Before Digging
Call 1-800-272-3020

Debris Removal



Note: Contract is to remove Debris from upstream and downstream Culverts which includes inside of culverts

Exception: All Crossing which cross State or Federal highways are not included in contract

Typical Road Culvert type Crossing Not to Scale

Notice:
48 Hours Before Digging
Call 1-800-272-3020

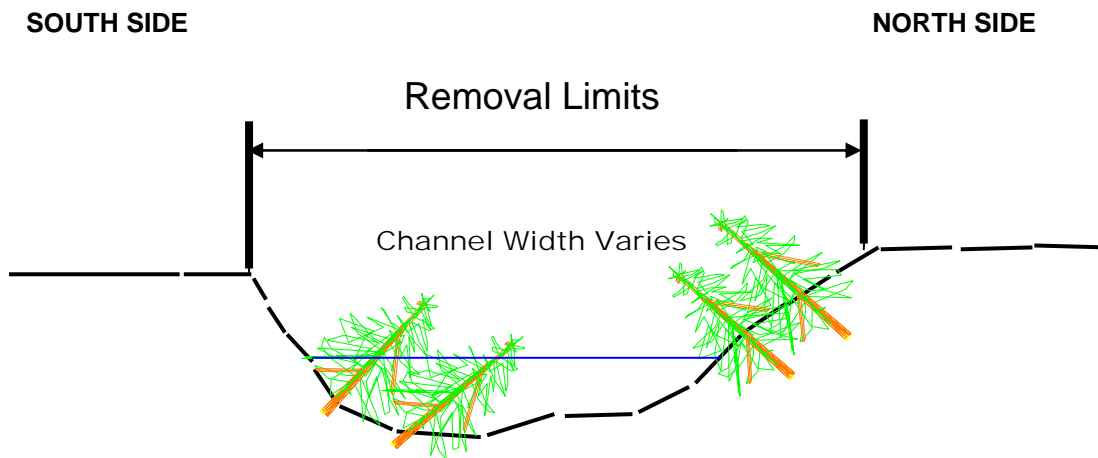
DSR No: 019-05-062R

PARISH/SPONSOR: Calcasieu / Gravity Drainage District #4

CHANNEL: Contrand Bayou (Common St. to Louisiana Ave.)

DEBRIS REMOVAL

TYPICAL SECTION REACH 1
(Between Common St. and Kirkman St.)



Typical Section Not to Scale

Notice:
48 Hours Before Digging
Call 1-800-272-3020

***Note** :Access and work this reach from within the channel with portable floating equipment. All access routes shall be dressed and left free of tracks or ruts upon completion.

Exception it may be possible that trees which were located outside of the the rightaway may have fallen into the right of way, these trees will be remove which may be located outside of the right of way.

DSR No: 019-05-062R

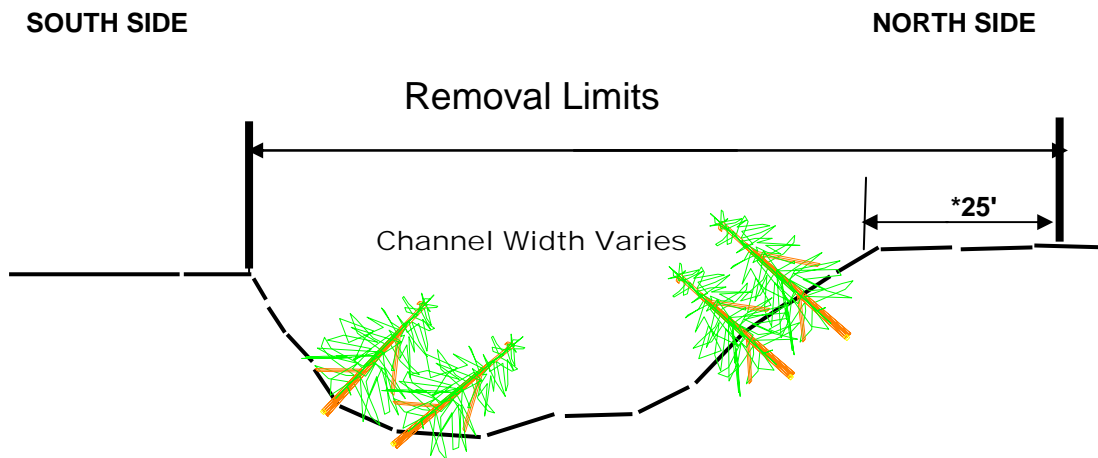
PARISH/SPONSOR: Calcasieu / Gravity Drainage District #4

CHANNEL: Contrand Bayou (Common St. to Louisiana Ave.)

DEBRIS REMOVAL

TYPICAL SECTION REACH 2

(Between Kirkman St. and Louisiana Ave.)



Typical Section Not to Scale

Notice:
48 Hours Before Digging
Call 1-800-272-3020

***Note :**Access and work this reach from north side only. All fences removed within the removal limits for access shall be replace with like kind by the contractor. All access routes shall be dressed and left free of tracks or ruts upon completion.

Exception it may be possible that trees which were located outside of the the rightaway may have fallen into the right of way, these trees will be remove which may be located outside of the right of way.

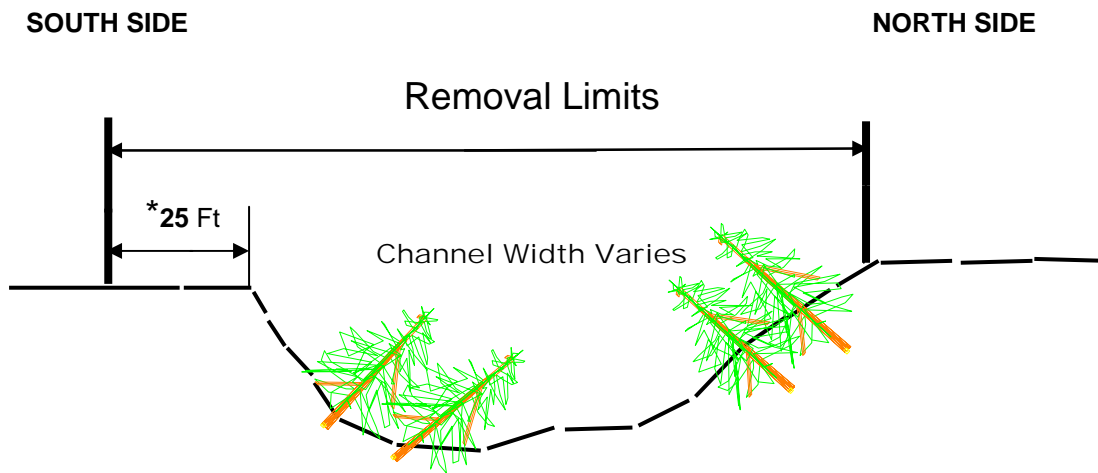
DSR No: 019-05-062R

PARISH/SPONSOR: Calcasieu / Gravity Drainage District #4

CHANNEL: Contrand Bayou (Common St. to Louisiana Ave.)

DEBRIS REMOVAL

TYPICAL SECTION REACH 3
(East of Louisiana Ave.)



Typical Section Not to Scale

Notice:

48 Hours Before Digging

Call 1-800-272-3020

***Note:** Access and work this reach from south side only. All fences removed within the removal limits for access shall be replaced with like kind by the contractor. All access routes shall be dressed and left free of tracks or ruts upon completion.

Exception it may be possible that trees which were located outside of the rightaway may have fallen into the right of way, these trees will be removed which may be located outside of the right of way.

DSR No:		019-05-062R	Preferred Measure
Section 5 Engineering Cost Estimate Worksheet			
Parish:	Calcasieu		
Channel:	Contraband Bayou		
Location:	From east side of Common St to 300 ft. east of Louisiana St.		
Completed By:		Jason Kroll	Date: 22-Feb-06

Type of Work: Debris Removal

Location of Work:

Township(s)	Range(s)	Section(s)	Quadrangle(s)
T10S	R8W	20	Lake Charles

	Reach 1		Reach 2		Reach 3	
	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude
Downstream Start:	30.17732	93.21371	30.17883	93.20953	30.17979	93.20540
Upstream End:	30.17993	93.20953	30.17979	93.20540	30.17979	93.20444

Estimated Length of Work Segment (ft) Reach 1:	2,470	linear feet
Estimated Length of Work Segment (ft) Reach 2:	1,270	linear feet
Estimated Length of Work Segment (ft) Reach 3:	300	linear feet
Estimated Length of Work Segment (ft) TOTAL:	4,040	linear feet

Item No.	Proposed Recovery Measure	Quantity	Units	Unit Cost	Amount
1	Mobilization & Demobilization	1	LS	\$10,000.00	\$10,000
2	Channel Obstruction Removal	4,040	LF	\$9.90	\$39,996
3	Seeding, Sprigging and Mulching	1	AC	\$200.00	\$200
4	Flexifloat **(see explanation in "Comments")	1	LS	\$4,800.00	\$4,800
5					\$0

Note: Estimated cost of debris removal includes equipment, labor, hauling, and disposal of material.

Total Estimated Construction Cost \$54,996

Performance Time:

Production Rate	Segment Length	Production Time	Contract Time
220 Ft/Day	4,040 Ft	18.36 Days	21 Days
		Plus 2 Days Move In	

Estimated Cost of Equipment with Labor (Per Revised Costs by BAS 2-9-06)

Description of Work:	Medium with Complexities	Cost per LF \$9.90
----------------------	--------------------------	--------------------

Estimated Cost of Seeding with Labor

Segment Length	Segment Width	No.of Segment	Acres	Cost per Ac	Total Cost
2,000 Ft.	25 Ft.	1	1	\$200	\$200

Comments:

Selected Alternative involves dividing the channel into 3 reaches: Reach 1 will be worked from within the channel up to top bank on both sides of the channel. Reach 2 will be worked from the top bank on the north side of the channel with a 25 ft access. Reach 3 will be worked from the top bank on the south side of the channel with a 25 ft access. Cost of seeding with labor includes Reach 2 and 3 for the total length and an area for access for Reach 1. ** The cost for Flexifloat: \$80/section/day & needs 4 sections/day. 80x4=\$320/day. Estimate them needing the flexifloat for 15 days.

Channel Obstruction Evaluation

SITE INFORMATION			
Parish: <u>Calcasieu</u>	Site: <u>Contraband Bayou</u>		
City: <u>Lake Charles</u>	<u>Louisianne Street</u>		
Sponsor: <u>Mik</u>	Reach:	From -	
Date: <u>12-15-06</u>		To -	
Evaluation Team: <u>Jason Kroll, Joy Martin</u>			

PHOTO NUMBERS AND BRIEF DESCRIPTION		WAYPOINTS	
Photo #	Description	(CIRCLE location and record in Decimal Degrees)	
		Start Work (D/S end)	N
		Midstream	
		End Work (U/S end)	W

NEARBY AND UPSTREAM STRUCTURES			
(Fill in Numbers, Values, and Size)			
CHURCHES		SCHOOLS	
No. of Churches	<u>0</u>	No. of Schools	<u>1</u>
HOMESITES		PUBLIC FACILITIES	
No. of Homesites	<u>504</u>	No. of Public Facilities	<u>1</u>
BUSINESSES			
Average Value of Homes (X \$1,000)		No. of Businesses	<u>10</u>
		Size of Businesses	S <u>(M)</u> L

STREAM CROSSINGS		
(CIRCLE type and write material, size and length)		
TYPE	MATERIAL	NUMBER, SIZE, & LENGTH
Bridge	<u>concrete pile</u>	<u>3 (2 lane, 4 lane, 5 lane)</u>
Culverts		
Other or None		

UTILITIES			
(CHECK the location of the utilities in the area and CIRCLE stream orientation)			
	Overhead (Power, Cable, etc.)	U/S	D/S
	Buried (Gas, Sewer, water, etc.)	U/S	<u>(D/S)</u>
	Elevated Cross channel (Water, Gas, etc.)	U/S	D/S
Remarks:			

CHANNEL CHARACTERISTICS				FLOW	
(CHECK appropriate box for slope and fill in dimensions information)					
SLOPES		DIMENSIONS		Is Water Flowing?	
<input checked="" type="checkbox"/>	1.5 : 1 or steeper	Top Width (ft.)	<u>40</u>	YES	<u>barely</u> <u>(NO)</u>
<input type="checkbox"/>	1.5 : 1 through 3 : 1 Slope	Bottom Width (ft.)	<u>30</u>	Is debris accumulating? (i.e. Leaves, Trash)	
<input type="checkbox"/>	Flatter than 3 : 1	Depth (ft.)	<u>15</u>	<u>(YES)</u>	NO

STATEMENT OF PROBLEM					
(CHECK the boxes as needed, and CIRCLE the size of debris that applies)					
DEBRIS	IN CHANNEL	ACROSS CHANNEL	SIZE OF DEBRIS		
Pine Trees	<input checked="" type="checkbox"/>				
Hardwoods	<input checked="" type="checkbox"/>				
Shrubs	<input checked="" type="checkbox"/>				
Other (explain)					
			BLOCKAGE		
			% of X-Section Obstructed:		
			<u>Less than 25%</u> 26%-50%		
			51%-75% 76%-100%		

WORK METHOD AND LOCATION	
(CHECK the box that best applies)	
<input type="checkbox"/>	Within Channel Floating Equipment (i.e. Barge or Marsh Buggy)
<input type="checkbox"/>	Within Channel Non - Floating Equipment (Excavator/Track-hoe, Spider, etc)
<input type="checkbox"/>	From Top Banks
ACCESS TO SITE	
(Explain access issues and possible difficulties)	
<u>houses & businesses on both sides of channel, could work from berms in channel</u>	

very urban area